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1913/15

JANUARY 1916

The
Maryland Agricultural College

BIENNIAL REPORT

INCLUDING A SUMMARY
OF THE WORK AND NEEDS OF THE
AGRICULTURAL COLLEGE, EXPERIMENT STATION
AND EXTENSION SERVICE

LIBRARY—COLLEGE PARK

MARY



TIES

The net return from
Her two millions of
be increased in value.
Her average yield
acre, and this would
more per year.

One pint more milk
over one million dollars more for their labor each year.

Unused hill land could be turned into pastures that would feed
at least a half million sheep.

Maryland can be made the greatest fruit State in the East. Land
suitable for orchard fruits that now sells for \$10 to \$30 per acre
can be made worth \$150 to \$300 per acre.

OTHER CROPS CAN BE DEVELOPED PROPORTIONALLY.

Maryland's soil, climate and location are exceptionally well fitted
for growing food for man. She has ten million consumers in the
cities and towns located at her doors.

NO STATE IN THE UNION HAS AS GOOD MARKETS.

The consumers should pay less for food and the producers get
more for their products than at present. Cooperation between
buyer and seller will make this possible.

More profit in farming will attract settlers and increase land
values.

The water-power that is going to waste on thousands of Maryland
farms should be harnessed and made to lighten and do much
of the farm labor.

**Maryland should rank first as a state of prosperous farms and
pleasant homes.**

Her 200,000 growing boys and girls are entitled to as good
educational facilities as other States provide for their children.
They should be trained to make the most of these possibilities.

The first-class equipment of your Agricultural College for education,
investigation and the demonstration of these possibilities
would be the greatest factor the State could have for bringing about
these desired results.

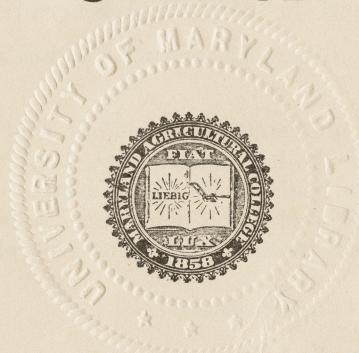
LET US HAVE A GREATER STATE THROUGH A
GREATER AGRICULTURE, AND A GREATER AGRICUL-
TURE THROUGH A GREATER AGRICULTURAL COLLEGE.

Maryland. University

BIENNIAL REPORT

OF THE

MARYLAND AGRICULTURAL
COLLEGE



1914-1915

COLLEGE PARK, MARYLAND

1916

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1913/15



*Hon. Emerson C. Harrington, Governor of Maryland, and Members
of the Maryland Legislature, Annapolis, Maryland.*

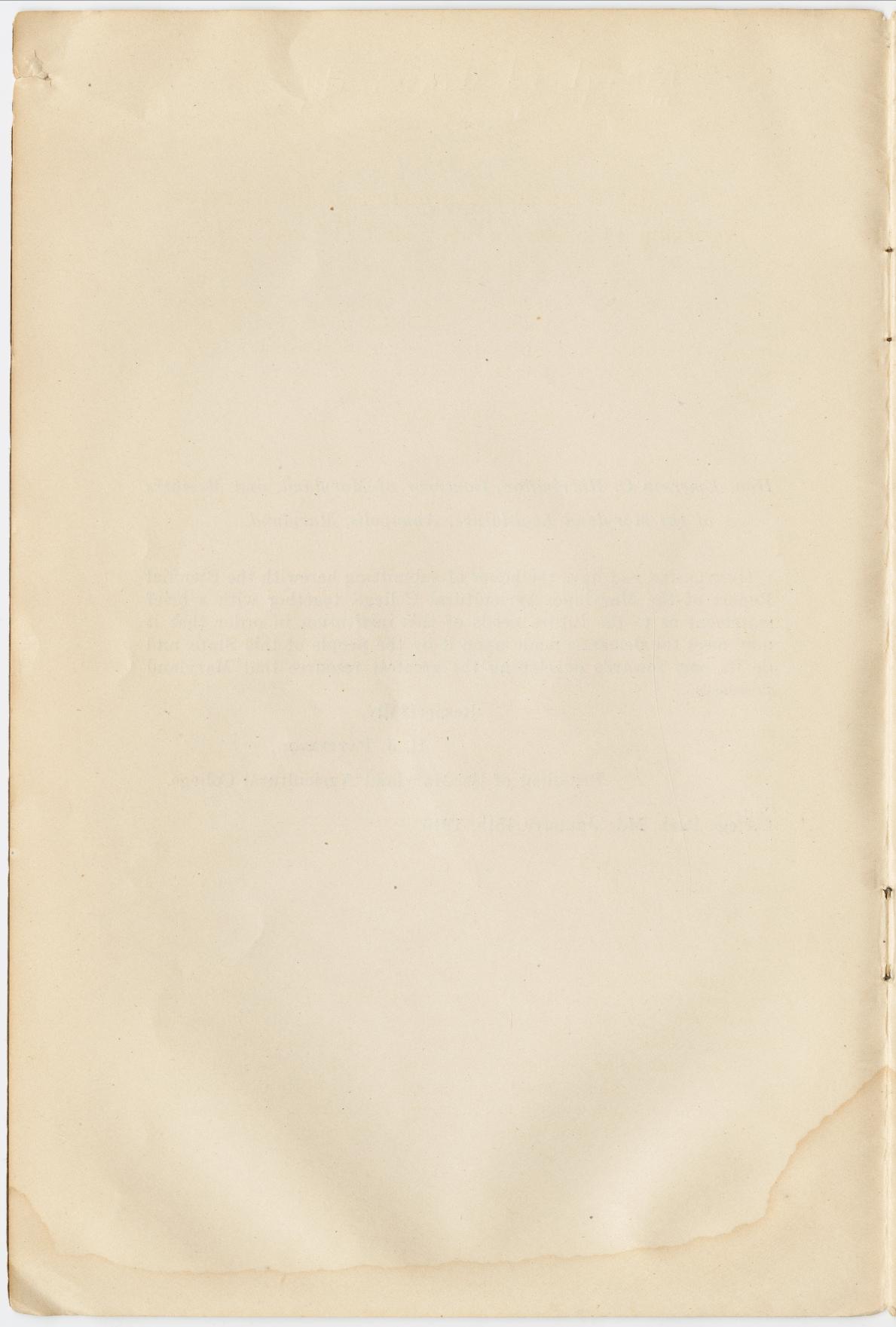
GENTLEMEN:—I have the honor of submitting herewith the Biennial Report of the Maryland Agricultural College, together with a brief statement as to the future needs of this institution in order that it may meet the demands made upon it by the people of this State, and do its part towards developing the greatest resource that Maryland possesses.

Respectfully,

H. J. PATTERSON,

President of the Maryland Agricultural College.

College Park, Md., January 15th, 1916.



Report on the Work and Expenditures of the Maryland Agricultural College for the Year 1914 and 1915.

Several things have transpired during the past two years which mark in a pronounced manner a new epoch in the history of the Maryland Agricultural College, and place upon the legislature and executive officers of the State an important obligation.

STATE OWNERSHIP.

The Maryland Agricultural College is now entirely owned by the State. All of its real and personal property became vested in the State by the foreclosure of the mortgage held by the State on September 23rd, 1914. This action made the Maryland Agricultural College the only college in the State entirely owned and controlled by the State, and would seem to place the State under a special obligation to support that institution for the work and purposes outlined in the original charter granted to it by the State.

The Maryland Agricultural College, chartered in 1856 as a private philanthropic enterprise, was the result of the public spirit manifested by the citizens of Maryland. Displaying the same generous disposition the descendants, who inherited the stock issued to the subscribers under this charter, acquiesced in the foreclosure of the mortgage held by the State, so as to give the State of Maryland a good title to the absolute ownership of the Maryland Agricultural College.

As the State is now sole owner of the Maryland Agricultural College and the institution becomes, in fact, the State College of Maryland, it will probably call for the issuance of a new charter providing for the future policy and government of the college.

NEW CHARTER.

It is not within the province of this report to present a new charter for your consideration but it seems desirable in this connection to call your attention to the necessity of keeping in mind, when framing a charter for the State College of Maryland that its provisions should be *broad* and *liberal* enough to enable the institution to do any work which it may seem desirable to delegate to the college to perform, either now or in years to come, and also to call especially your attention to the fact that the charter should make adequate pro-

visions for conducting the work outlined in the several acts passed by the U. S. Congress making appropriations to the Maryland Agricultural College and which the State is under obligation to carry out under the implied contracts made when the State accepted the grants and designated the Maryland Agricultural College to do the work required by these several acts.

UNITED STATES ACTS.

The United States made appropriations to agricultural colleges for three kinds of work, viz:

1. Educational work as provided for by "The First Morrill" or sometimes called "The Land Grant Act of 1862"; the Second Morrill Act of 1890"; and "The Nelson Act of 1907."
2. The Experiment Station or Investigational Work as provided for by The Hatch Act of 1887; and The Adams Act of 1906.
3. The Extension or Demonstration work as provided for by the Smith-Lever Act of 1914.

STATE ACTS.

The State Acts provide for the three kinds of work enumerated above and in addition it provides for "Inspection", "Police" or "Regulatory" work, such as Fertilizer, Cattle Food, Lime, Nursery, Orchard and Seed inspections. This kind of work can be done more economically and efficiently under the auspices of the college but it is not strictly educational, and appropriations for these purposes should not be charged against the College Educational Funds.

EDUCATIONAL WORK.

The character and scope of the educational work required by these several Acts can best be gained from the following quotations from the Acts:

From State Charter of 1856: "By establishing an agricultural college and model farm, which shall, in addition to the usual course of scholastic training, particularly indoctrinate the youth of Maryland theoretically and practically, in those arts and sciences, which with good manners and morals, shall enable them to subdue the earth and elevate the State to the lofty position its advantages of soil and climate, etc., and the moral and mental capacities of its citizens entitle it to attain."

From Land Grant Act of 1862: Funds to be used for the "endowment, support and maintenance of at least one college where the leading object shall be, without excluding other scientific and classical

studies, and including military tactics, to teach such branches of learning as are related to agriculture and the mechanic arts, in such manner as the legislatures of the States may respectively prescribe, in order to promote the liberal and practical education of the industrial classes in the several pursuits and professions of life."

From Second Morrill Act of 1890. States that the appropriation shall be applied only to instruction in agriculture, the mechanic arts, the English language and various branches of mathematics, physical, natural and economic science, with special reference to their applications of the industries of life, and to facilities for such instruction: *Provided*, that no money shall be paid out under this Act to any state or territory for the support and maintenance of a college where a distinction of race or color is made in the admission of students, but the establishment and maintenance of such colleges separately for white and colored students shall be held to be a compliance with the provisions of this Act if the funds received in such state or territory be equitably divided.

The Nelson Act of 1907 provides that in addition to the work enumerated in the other Acts that the college shall give courses for the "Special preparation of instructors for teaching the elements of agriculture and the mechanic arts".

All of the U. S. Acts prohibit the use of the money appropriated for either the construction or repairing of buildings or for the paying of the salaries of executive officers.

WHAT DOES MECHANIC ARTS INCLUDE?

The United States Commissioner of Education has found it necessary from time to time to make certain rulings concerning the scope and the enforcement of the provisions of the "Morrill" law. Instructions emanating from this Federal officer, of necessity, carry great weight. Therefore, it is of interest to note the many subjects which, with the sanction of the authorities of the United States Bureau of Education, have been classified as coming under the general heading of "The Mechanic Arts." They are:

Mechanical Engineering,	Architecture,
Civil Engineering,	Machine Design,
Electrical Engineering,	Mechanical Drawing,
Irrigation Engineering,	Ceramics,
Mining Engineering,	Stenography,
Marine Engineering,	Typewriting,
Railway Engineering,	Telegraphy,
Experimental Engineering,	Printing,
Textile Industry,	Shopwork.

STUDENT ENROLLMENT.

That the class of education provided for under these several Acts is desired and in demand is evidenced by the constantly increasing number of students availing themselves of the opportunities offered by the Maryland Agricultural College during the past fifteen years.

SUMMARY OF STUDENTS.

	1914.	1915.	1916.
Graduate	14	6	5
Senior	17	36	31
Junior	37	33	32
Sophomore	48	42	52
Freshman	66	69	91
Sub-Freshman	29	58	43
*Preparatory	22
Second-Year Agricultural and Horticultural...	20	8	15
First-Year Agricultural and Horticultural....	26	36	28
Special	8	15	9
Short Winter Courses in Agriculture, Domestic Science and Road Making.....	201	213	†
Summer School	38	140	†
<hr/> Total.....	<hr/> 526	<hr/> 659	<hr/>

* Preparatory class discontinued after 1914.

† Students in these courses enter after this goes to press.

NOTE.—Seventy-three per cent. (73%) of the collegiate classes are pursuing agricultural subjects and twenty-seven per cent. (27%) mechanical and engineering subjects. All agricultural students receive some instruction in Mechanic Arts.

FINANCES.

The receipts and expenses of the College should be considered under three heads.

1st. Academic or true college expenses necessitated by the salaries of teachers and facilities for instruction.

2nd. Repairs, refurnishing and permanent improvements.

3rd. Student expenses or board, laundry and miscellaneous supplies. These should not be considered a true college expense. Most of these expenses do not form any part of the college receipts or disbursements for day students and never appear in the accounts of colleges that have no dormitories or boarding departments.

During each of the fiscal years ending June 30, 1914 and 1915, the following sums were received by the College for purely college work:

From U. S. Government.....	\$50,000.00
From State of Maryland.....	16,000.00
From investment, Land Script Act, 5% interest	5,797.16

Total	\$71,797.16
Less amount given to Eastern Branch for education of colored race.....	10,000.00

	\$61,797.16

NOTE.—\$10,000.00 allotted to Eastern Branch to comply with National Law, which requires that a part of these Federal appropriations be devoted exclusively to provide instruction for the negro race.

This pays the salaries of about 30 professors and instructors, assistants, etc. It supports about 20 departments of instruction, all of which are needed in an up-to-date agricultural college. These departments all need more room and equipment to accommodate the number of students now in attendance. Details of the expenditures will be found on the following pages.

A comparison with similar institutions in other States shows our instructors to be carrying at least 25 per cent. more class work, besides other duties, and that our men receive at least 30 per cent. less salary. The receipts from students are devoted to paying their living expenses. The cost to students is reduced to the minimum.

The above funds, then, provide for all instruction work, equipment of the various departments, general expenses and maintenance of the college work. The U. S. Government funds cannot be used for buildings and general expenses. It is sufficient to say that the Agricultural College of New Jersey receives \$268,858 for the work which Maryland has to do with about \$61,000. and New Jersey has not nearly the agricultural possibilities of Maryland. The State Agricultural College of Connecticut receives \$202,881; Rhode Island, \$147,464, and West Virginia, \$208,871. The average appropriation to the state

agricultural colleges in this country is \$454,653. Maryland ranks next to the lowest in total income for her agricultural college. (See report U. S. Bureau of Education, 1913.)

COURSES OFFERED.

The College offers four-year courses leading to the degree of Bachelor of Science; Two-Year Courses for which a certificate is granted; Short Courses covering a period of from one to ten weeks; and Summer Courses covering a period of six weeks.

FOUR-YEAR COURSES.

The four-year or regular college courses coordinates with the standard high-school course of Maryland. Fifteen units are required for admission to these courses. Four-year courses are given in General Agriculture, Animal Husbandry, Horticulture (permitting students to specialize in Pomology, Vegetable Growing, Floriculture or Landscape Gardening), Biology (Economic Entomology or Botany), Agricultural Chemistry, Canning, General Science, Civil Engineering, Mechanical Engineering, Electrical Engineering, Rural Engineering, Engineering Education, and Agricultural Education. These courses are designed to enable students to prepare either for practical or professional work.

TWO-YEAR COURSES.

Two-year courses are offered in Agriculture and Horticulture. They are designed especially for persons who cannot give four years to study and who desire to engage in farming. Practical work is made a prominent feature of these courses. Students who have completed the Seventh or Eighth grades in the public schools can enter these courses, yet they are taken by many high school and even college graduates.

SHORT COURSES.

These courses cover a period of 12 weeks and they are made up of units of one week each. The following schedule of courses will be offered this Winter:

Soils and Fertilizers.....	January 3-8
Farm Crops	January 10-15

Domestic Science	January 10-15
Road Building and Maintenance.....	January 10-15
Poultry Husbandry	January 17-22
Horticulture	Jan. 24—Feb. 5
Animal Husbandry	February 7-26
Farm Machinery and Farm Engines...	Feb. 28—Mar. 4
Farm Carpentry and Blacksmithing.....	March 6-11

SUMMER SCHOOL.

The Summer School work was inaugurated in 1914. It was specially designed to give the teachers in the public schools an opportunity to prepare for teaching agriculture, domestic science and other vocational subjects. In order to meet the demands of the County School Superintendents and the students taking Summer work, it was necessary to offer Elementary and College Credit Courses in addition to the vocational work. In 1914, there were 40 students to attend the Summer School; and in 1915, 140 students.

WORK OF THE MARYLAND AGRICULTURAL COLLEGE.

Maryland is an agricultural State. If she is ever to be rich and truly prosperous, she must become so through the scientific development of her farming interests. Maryland's greatest natural resource is her soil. Nearly one-half the population of Maryland is engaged in agricultural pursuits. Everyone is dependent upon the farm and garden for his food. Most of the towns of Maryland have been built and are supported by agriculture.

A large part of the business of Baltimore is directly dependent upon the farm. U. S. Statistics show that 85 per cent. of the raw material used in factories comes from the farm.

Of the 6,362,240 acres of land in Maryland only 3,354,767 acres or 52.7 per cent. of the total area is farmed. Further, a large per cent. of the land that is farmed does not yield more than 50 per cent. of what it would yield if well established facts and practices were followed on the farm.

The untilled land is now assessed at practically nothing, or from \$1 to \$5 per acre. These lands can be made productive and the yields of cultivated lands can be largely increased by a constructive and progressive state policy for agricultural development through the Agricultural College. By this means, the assessable basis can be largely increased, thereby producing additional revenue without increasing the state tax rate to provide for the many public improvements desirable for a progressive people, and the general development of

the State. A policy for developing the agriculture of the State is a policy for helping all the people in the most fundamental and lasting manner.

Maryland's varieties of adaptable soil, climate, transportation facilities by land and by water, and nearness to the large markets of the east, offer unusual opportunities for agricultural development. Maryland has 10,000,000 consumers in the cities and towns located at her doors. No state in the union is better situated as regards markets.

The productive power of a state is dependent upon the degree of education of her people. The mission of the State Agricultural College is to give to all the people of the State an opportunity for becoming educated in the several agricultural and industrial pursuits and thus increase their productive capacity and develop the State's resources.

DIVISIONS OF WORK.

The State Agricultural College should be organized so as to provide for instruction, investigations and extension work by all of its departments and in addition many departments should do inspection or control work.

The following division of work should be organized and equipped so as to meet the demands made upon the College:

1. Division of Plant Industry.

Agronomy	Forestry
Pomology	Botany
Olericulture	Plant Physiology
Floriculture	Plant Pathology
Landscape Gardening	Entomology

2. Division of Animal Industry.

Animal Husbandry	Dairy Husbandry
Poultry Husbandry	Creamery and Dairy Products
Veterinary Medicine	Animal Physiology
Animal Pathology	

3. Division of General and Applied Science.

Chemistry	Fertilizers
Bacteriology	Lime
Geology	Cattle Feeds
Canning	Milling

4. Division of Rural Economics and Sociology.

Economics	Sociology
Civics	Philosophy
English	Public Speaking
History	Language
Physical Culture	Military Training
Statistics	Immigration
Markets	Agricultural Organizations

5. Division of Engineering.

Rural Engineering	Farm Mechanics
Rural Sanitation	Farm Architecture
Land Drainage	Highway Construction
Mechanical Engineering	Civil Engineering
Power and Experimental Engineering	Electrical Engineering

6. Division of Rural Education and Summer Schools.

(This work is specially necessitated by the provision of the U. S.
Nelson Act. See page 7 of this report.)

Agricultural Education	Engineering Education
Home Economics Education	Summer School
Practice classes of the 3d and 4th year local high school students.	

7. Division of Home Economics or Home Making.

Domestic Science	Domestic Arts
Home Sanitation	Home Nursing
Home Management	Institutional Management

FACILITIES NEEDED.

In order to do the work outlined above, it will be necessary to provide an adequate plant and equipment and then provide a fund for maintenance.

A hotel needs a building and equipment before it can accommodate guests. A store needs a building and stock of goods before it can cater to trade or advertise for customers. Just so an educational institution needs proper buildings and a full equipment before it can expect to attract students or satisfy its patrons.

BUILDINGS AND FACILITIES NEEDED.

The following list of buildings and facilities are needed to properly equip the Agricultural College for its work. The cost of the buildings are approximated, but it is certain that these amounts would only be sufficient to provide a modern equipment of modest and moderate proportions.

Agricultural Building.....	\$175,000
Armory, Gymnasium and Athletic Field.....	100,000
General Science, Chemical, Bacteriology and Can. Building.	75,000
Water, Sewerage, Heat, Light, Fire Protection and Roads..	25,000
Dormitories, Kitchen, Dining-rooms.....	125,000
Home Economics Building.....	100,000
Administration, Academic and Auditorium Building.....	150,000
Horticultural and Forestry Building.....	100,000
Rural Engineering and Farm Mechanics Addition.....	50,000
Experiment Station Laboratories.....	75,000
Student Practice Farms.....	25,000
<hr/>	
Total.....	\$1,000,000

These buildings need not be put up all at once, but they should be supplied within the next five or six years in order to take care of the present rate of growth.

In order that plans be made for the proper kind of buildings the money for the entire plant should be provided for at once.

The student practice farms should be made to serve the same purpose and relation to an agricultural college that a hospital does to a medical school.

MAINTENANCE OF PLANT.

A plant such as has been outlined will provide facilities for the care of at least 1000 students and the present rate of growth would indicate that within five years the attendance would be at least 700.

To properly take care of this number of students would call for the State to appropriate for 1916-17 \$50,000 and increase that amount annually by \$10,000, until the amount reached \$100,000.

The money appropriated for maintenance would have to provide for repairs, refurnishings, supplies, new equipment, travel and contingent expenses of the several divisions enumerated above and also provide for salaries of professors, assistants and instructors.

EXPERIMENT STATION WORK.

The report of the Experiment Station gives details as to the work and expenditures of this division.

The State has contributed to the investigational work by appropriating \$10,000 annually for general maintenance and \$4,000 for horticultural investigations.

The legislature of 1914 appropriated \$10,000 for 1915 and \$20,000 for 1916 for special soil investigations, but as only \$5,000 of this appropriation has been paid and that late in 1915 the work could not be inaugurated on a satisfactory basis.

The Station needs for the work now in progress and the new soil work required by the law of 1914, \$25,000 per year. The Sub-Station located at Ridgely should have \$5,000 annually, to enable it to do the special work desired for that section.

EXTENSION SERVICE.

The College and Experiment Station had been doing for a number of years as much extension and demonstration work as funds would permit. After the passage of the U. S. Smith-Lever Bill in 1914, an extension division was organized and the work put on a more systematic basis.

It is the business of this service to carry the results of the experiments conducted and other information out to the farmers and demonstrate better methods to them. This service carries information from all the departments of the College and Experiment Station enumerated in the preceding pages to the farm and home through the County Agents, Farmers' Organizations, Farmers' Institutes, Womens' Clubs, Boys' Clubs, Girls' Clubs, Movable Schools, Correspondence Courses, personal visits and letters.

The U. S. Appropriations for this work require that the State provide a like sum. The U. S. Appropriations (Smith-Lever and Special for County Agents) for Maryland for 1916-17, will be \$47,203, and for 1917-18 will be \$53,659. In addition to these amounts the extension service needs an allowance for contingent and special work not provided for by U. S. funds.

(1) ACADEMIC OR TRUE COLLEGE RECEIPTS AND EXPENSES.

From State and United States Appropriations.

Receipts.	1913-14.	1914-15.
Balance from previous year.....	\$6,765.74	\$142.55
Morrill Act—1890	25,000.00	25,000.00
Nelson Act—1907	25,000.00	25,000.00

Interest Land Script Fund—1862.....	5,797.16	5,797.16
State appropriation for maintenance.....	16,000.00	16,000.00
	<hr/>	<hr/>
	\$78,562.90	\$71,939.73
Less amount paid to Eastern Branch for educating Colored Race.....	10,000.00	10,000.00
	<hr/>	<hr/>
Total for use of M. A. C.....	\$68,562.90	\$61,939.73
Expenses of academic work.....	64,804.81	61,475.91
	<hr/>	<hr/>
Balance used to meet deficiency in student expenses.....	\$3,758.09	\$463.82

DISBURSEMENTS.

	1913-14.	1914-15.
Executive	\$15,883.79	\$13,367.37
Agricultural	27,962.94	25,287.25
Engineering Division	10,859.10	12,191.98
Short Courses	672.62	514.02
Summer School		392.23
Military Department	1,603.30	1,513.55
Library	2,998.82	3,217.17
One-half expenses of heat, light and water..	3,874.62	4,836.84
Taxes and Insurance	949.62	154.50
	<hr/>	<hr/>
	\$64,804.81	\$61,475.91

EXECUTIVE DIVISION.

Exhibit A.

	1913-14.	1914-15.
Salaries	\$7,992.76	\$6,563.24
Clerical Assistants	828.45	661.90
Postage	761.62	486.54
Supplies	102.46	94.95
Catalogs and Bulletins	2,324.76	2,917.02
Trustee Expenses	1,525.91	1,011.89
Advertising	1,243.73	1,112.52
Commencement Exercises	508.49	319.64
Travel	595.61	164.67
Contingent (Dues A. A. A. C. & E. S.).....		35.00
	<hr/>	<hr/>
	\$15,883.79	\$13,367.37

STUDENT EXPENSES.

Receipts.

The receipts from students are for table board, room rent, laundry, books, etc.

	1913-14	1914-15
From Resident Students.....	\$27,071.07	\$34,016.05
From Day Students.....	2,875.30	2,366.60
From Summer School.....	325.00	1,625.61
From Boarders and Room Rent.....	147.10	449.59
From Lunch Counter.....	909.47	808.83
From Sundries.....	73.46	26.74
From Athletic Refund.....	324.42	193.81
From Examinations and Supplies.....	171.86	156.92
From Key Deposit.....		45.75
	<hr/>	<hr/>
	\$31,897.68	\$39,689.90
Deficiency provided for from State Appropria-		
tion and from Inspection Fees.....	9,110.07
Excess	2,622.10
	<hr/>	<hr/>
	\$41,007.75	\$37,067.80

DISBURSEMENTS.

	1913-14	1914-15
Boarding	\$25,968.42	\$19,809.89
Laundry	1,381.65	1,525.64
Athletics	2,954.87	3,402.72
Medical	666.64	706.13
Refunds	317.17	581.92
Miscellaneous Supplies.....	17.38	976.61
Miscellaneous Services	3,196.57	3,053.58
One-half Heat, Light and Water.....	3,874.61	4,836.83
Text Books	2,630.44	2,174.48
	<hr/>	<hr/>
	\$41,007.75	\$37,067.80

PERMANENT IMPROVEMENTS AND REPAIRS.

Receipts.

	1913-14	1914-15
Balance on Building Fund.....	\$517.10
Insurance	1,450.00

Interest on Bank Deposit.....	615.06	\$330.95
Balance from Foreclosure of Mortgage.....		866.94
Trustee Account No. 2.....	500.00
Rent from Washington, D. C. House.....	46.68	139.90
Miscellaneous Sales.....	50.82	26.23
Inspection Fund	3,290.78	7,329.05
	<hr/>	<hr/>
	\$6,470.44	\$8,693.07

Disbursements.

	1913-14	1914-15
New Equipment; Green Houses and Laboratories	\$4,770.07	\$6,817.80
Repairs and Refurnishings	1,700.37	1,875.27
	<hr/>	<hr/>
	\$6,470.44	\$8,693.07

SUMMARY.

Receipts.

	1913-14	1914-15
Balances from Previous Year.....	\$6,765.74	\$142.55
Receipts from Appropriation for College		
Work (1)	61,797.16	61,797.18
For Student Expenses (2).....	31,897.68	39,689.90
Miscellaneous Receipts (3).....	3,179.66	1,364.02
Balance from Inspection Fees.....	8,785.31	7,634.23
	<hr/>	<hr/>
	\$112,425.55	\$110,627.88

Disbursements.

Academic Expenses.....	\$64,804.81	\$61,475.91
Student Expenses.....	41,007.75	32,067.80
Permanent Improvements.....	6,470.44	8,693.07
	<hr/>	<hr/>
	\$112,283.00	\$107,236.78
Balance	142.55	3,391.10
	<hr/>	<hr/>
	\$112,425.55	\$110,627.88

STATE DEPARTMENT OF FERTILIZERS, CATTLE FEED AND AGRICULTURAL
LIME CONTROL.

Receipts.

Fertilizer Licenses.....	} \$23,183.03	\$22,331.80
Cattle Feed Licenses.....		
Lime Licenses.....		

Disbursements.

	1913-14.	1914-15.
Laboratory Supplies	\$2,050.66	\$1,100.23
Office Supplies	23.50	89.26
Travel (Samplers)	1,452.99	1,716.61
Repairs	187.79	125.90
Salaries and Labor.....	9,522.01	10,955.92
Gas	261.10	124.64
Printing Bulletins on Results of Analyses.....	899.67	585.01
Balance Expended for Permanent Improve- ments	3,290.78	7,329.05
Balance Expended for College Work.....	5,494.53	305.18
	<hr/>	<hr/>
	\$23,183.03	\$22,331.80

STATE HORTICULTURAL DEPARTMENT.

Dr.

	1913-14.	1914-15.
Balance from Previous Year.....	\$3,265.20	\$2,362.41
State Appropriation	8,000.00	6,000.00
Interest on Bank Deposits.....	151.48	125.26
	<hr/>	<hr/>
	\$11,416.68	\$8,487.67

Cr.

Traveling Expenses	1,446.56	1,426.36
Investigational Expenses	20.00	33.05
Demonstration Expenses	342.60	241.29
Supplies for Demonstration Work.....	406.53	223.38
Seeds and Plants	3.25	3.24
Publications	5.50	2.00
Office Supplies	443.66	51.83
Postage	172.03	124.96

Telephone and Telegraph.....	34.37	30.09
Salaries and Labor.....	6,179.77	6,168.23
	<hr/>	<hr/>
	\$9,054.27	\$8,304.43
Balance Forward	2,362.41	183.24
	<hr/>	<hr/>
Total	\$11,416.68	\$8,487.67
Receipts	\$11,416.68	\$8,487.67

The appropriation of \$8,000 per year for the State Horticultural Department for nursery and orchard inspection is all used in that work out in the State and the College receives no monetary benefit, but, on the other hand, gives the department a home and considerable free service.

FARMERS' INSTITUTE DEPARTMENT.

Dr.

	1913-14	1914-15
Balance from Previous Year.....	\$1,671.31	\$958.67
Transferred from Tobacco Fund.....		.58
State Appropriation.....	6,000.00	6,000.00
Interest Bank Deposits.....	38.33	8.96
	<hr/>	<hr/>
	\$7,709.64	\$6,968.21

Cr.

Traveling Expenses.....	\$2,272.35	\$1,704.76
Lecturers' Expenses.....	1,648.86	1,597.68
Printing	380.18	158.20
Agricultural Committee Meeting's Expenses..	137.10	19.50
Lantern Slides.....		40.33
Salaries and Labor.....	2,312.48	2,853.02
	<hr/>	<hr/>
Total Disbursements.....	\$6,750.97	\$6,373.49
Balance Forward.....	958.67	594.72
	<hr/>	<hr/>
	\$7,709.64	\$6,698.21

The appropriation of \$6,000 per year for Farmers' Institutes is all used for that department in the work out in all parts of the State. The College and Experiment Station contributes considerably toward the efficiency of the institutes by giving the time of specialists for lectures and assisting in the work in other ways.

A WISE INVESTMENT.

We are wiser than we used to be. At least, we hope we are. We don't buy a cow any more with the idea of getting *some* milk from her. We buy her to get *all* she will produce. By the same token, we don't feed her as little as we can. We feed her just as much as she will use *profitably*. We don't feed her anything she happens to want or anything we happen to have. We study what our cow *needs* and how much. Then we give it to her. Then we get profitable results. If we don't, we get rid of the cow.

How about our Agricultural College. We bought it a good many years ago. We have been giving it all this time, just enough to keep it alive. We have been content to have it producing *some* students and *some* results. We have been feeding it just about as much appropriation scraps as we had lying around handy. Perhaps, we have been looking upon it as something we had to support instead of as an *investment* that should pay us good interest *on our own farms*. Well, some people feed their cows on just that principal. Isn't it about time we began to study what the needs of our Agricultural College are? Isn't it worth our while to consider whether or not a little better feeding with an eye to returns, will pay us? Isn't it sound reasoning that a college that will produce good results with such treatment is worth taking care of *right*? Think it over! Then act!

A STRONG AGRICULTURAL COLLEGE A PROFITABLE STATE INVESTMENT.

H. W. COLLINGWOOD,

Editor The Rural New Yorker.

A strong and active *agricultural college* is the *backbone* of any State. Other institutions may be called its brain or its heart, but that which stands for farming is its backbone. All wealth comes out of the ground. The last resort of society is in the soil, and that resort should be properly fitted for its occupants. The Agricultural College tells farmers how to make \$30 land pay interest on \$150 valuation. No other institution in the State does this with any Maryland property. The College also develops the man as well as the soil, and the best citizen is the small or medium-sized freeholder. As a matter of *plain business*, the College should be liberally equipped and supported. There can be no wiser State policy.

L. H. BAILEY,

Former Dean Cornell University.

Your people should know what may be accomplished by an enlarged College of Agriculture and Experiment Station. Such institutions mean not only the application of knowledge and skill to the operations of farming, but also the development of the ideals of country life. The people will secure from any institution or enterprise in the long run in proportion as they put money and effort into it. The development of agricultural institutions is one of the most striking movements of the times, and, in my estimation, it is absolutely *essential* to the progress of any commonwealth.